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(54) Title: CARCINOGEN ASSAY

(57) Abstract

The present invention is drawn to methods and assays for the early determination of whether a test agent is a carcinogen. These novel methods and assays are used to correlate the pattern of differential gene expression from mammalian cells treated with the test agent with reference patterns of differential gene expression of mammalian cells treated with known carcinogens. Further, the present invention is drawn to methods of use of DNA and RNA isolated from the treated mammalian cells as well as kits comprising same. The present invention also is drawn to methods of determining whether a test agent is a carcinogen by measuring protein synthesis or post-translational modifications from mammalian cells treated with the test agent compared with mammalian cells treated with a known carcinogen.